PLANAR

CLARITY MATRIX

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LCD Video Wall System

For control room and public venue video wall customers who need a thin profile video wall and uninterrupted operation, Clarity™ Matrix LCD Video Wall System is the ultra-narrow bezel LCD video wall system that provides outstanding tiled visual performance, supports extended operation and requires minimal installation space.

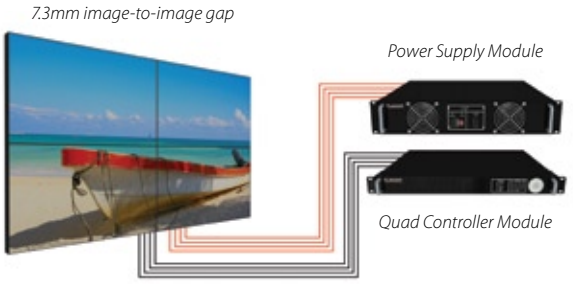
Unlike other products, Clarity Matrix combines an ultra-thin profile and unique tiling optimization features in an integrated, mission-critical system design. Clarity Matrix utilizes commercial-grade 46" LCD panels with breakthrough narrow-bezel characteristics resulting in just a 7.3mm pixel-to-pixel gap between images on adjacent panels in the video wall.

The Clarity Matrix LCD Video Wall System makes the most of LCD technology's slim profile and vibrant visual performance while easing the difficulties in achieving perfect alignment, optimal cooling, simplified service and extended operation.

UNIQUE ARCHITECTURE & BENEFITS BY DESIGN

The Clarity Matrix Video Wall System was architected and developed by video wall industry experts in a way that specifically addresses the challenges faced by all video wall installations: mounting and alignment, reliability and extended operation, service and maintenance access and simple, effective image processing and management.

At the heart of the Clarity Matrix architecture is a distributed design that takes heat, complexity and unreliability out from behind the LCD panel and replaces it with a centrally located, easily accessible and highly reliable rack-mounted system. The key components of the Clarity Matrix Video Wall System include the following.



Off-board electronics design

- Streamlined Clarity Matrix LCD Modules tile together to form the video wall and display the images.
- Clarity Matrix EasyAxis mounting system simplifies the task of installing and perfectly aligning the LCD Modules while allowing for efficient in-wall service.
- Clarity Matrix Quad Controller Module and Power Supply Module drive the wall and facilitate uninterrupted operation.
- Clarty Matrix configuration, management and processing software makes set-up and management of the wall easier and accommodates a range of image processing solutions.

UNCOMPROMISING IMAGE QUALITY

EasyAxis Mounting System

The Clarity Matrix Video Wall System includes the EasyAxis mounting system. The EasyAxis mounting system is designed to be attached to a wall, used with optional free-standing bases or secured overhead in a flying configuration. The single mount supports all these configurations. When used in wall-mount configuration, horizontal and vertical connection brackets ensure that each mount is perfectly spaced from its neighbor in the video wall. The mount system also incorporates a service mode to accommodate front and rear in-wall repair of any LCD module in the video wall.

EasyAxis mounts are designed to facilitate the thinnest profile LCD video wall in the market. The combination of the mount plus the Matrix LCD Modules "blade" design result in video walls that measure a mere 4.5 inches in depth, screen-to-wall, as opposed to other designs that require 60% more clearance.

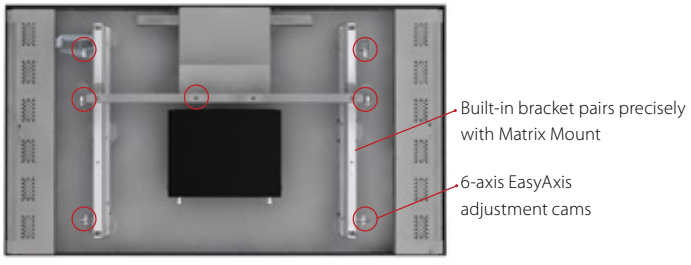
Mounting System 4.5" Installed Depth

Precise Panel Alignment

The Matrix LCD modules incorporate a single simple interface board designed to distribute off-board power, video and control signals to the LCD panel keeping depth, weight, heat and points of potential failure to an unprecedented minimum. The LCD blade-style module incorporates a bracket that is perfectly paired with the EasyAxis mount. The LCD module includes EasyAxis adjustment cams that facilitate precise 6-axis alignment ensuring uniform, minimized image-to-image gap.

The lighter design of the Clarity Matrix LCD module means that handling, installation, alignment and service are all easier to accomplish.

- 6-axis easy adjustment cams
- Lighter weight
- Fewer points of failure
- Reduced heat load
- Perfectly quiet



Matrix LCD Module

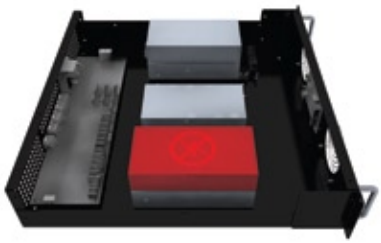
Clarity Matrix Service Mode for in-wall service

RELIABLE OPERATION & SIMPLIFIED MAINTENANCE

Because of the streamlined design of the Matrix LCD modules, fewer repairs are required at the panel itself. When the panels do need to be accessed or removed, this can be accomplished without removing other panels in the wall. Starting at the top of the wall, panels can be pulled up and out into Service Mode, allowing the panel below to be accessed.

Within each panel, the simple interface board can be disconnected and replaced using thumbscrews with access from either the front or the back of the wall. Panels can also be completely removed and replaced very quickly. Because of their streamlined design, they weigh less than typical LCD displays, are more easily handled, and produce no noise.

Redundant Power Supply



n+1 Redundant Power Supply

The rack-mount video processing and power supply units each support 4 LCD modules, incorporate their own cooling and make configuration, maintenance and upgrades easily accessible and unobtrusive to the video wall itself.

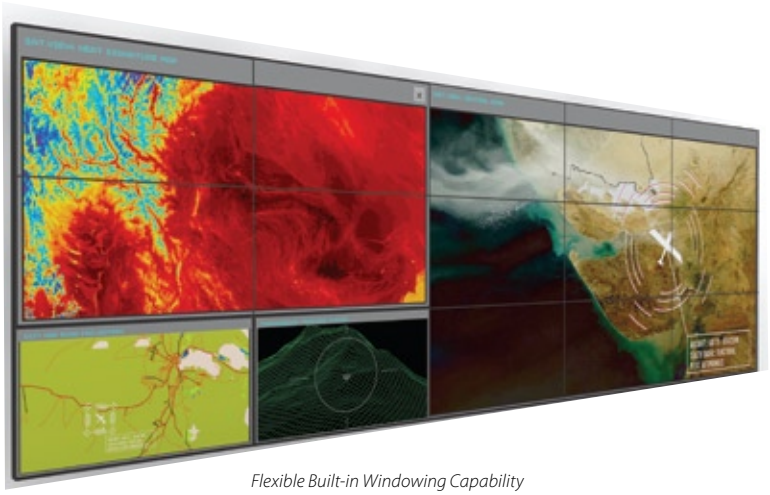
For even further reliability, the Matrix power supply unit includes an n+1 redundant design so if any one power supply in the unit fails, the remaining 4 will continue to power 4 LCD's with uninterrupted operation.

FLEXIBLE VIDEO PROCESSING

Once the Clarity Matrix LCD Video Wall is cabled together, a start-up utility allows the LCD modules to automatically discover their position in the wall and display the position within the wall on the front of the panel itself. This discovery process greatly reduces the complexity of configuration and is designed to be highly flexible in terms of physical cabling schemes.

LCD module control can be accomplished via IR and on-screen menu or via RS-232 or LAN control software.

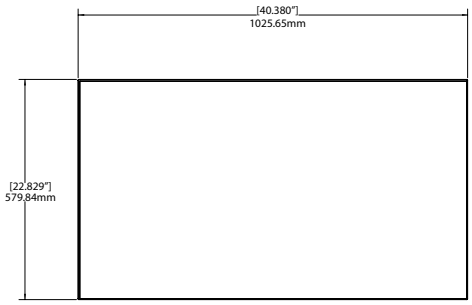
The video wall supports Planar's Big Picture Plus built-in processing which can scale a source across the entire video wall or any section chosen by the operator. For more complex configurations, the video wall can be driven by Planar's Indisys™ image processing solution or any leading image processor or digital signage software solution.



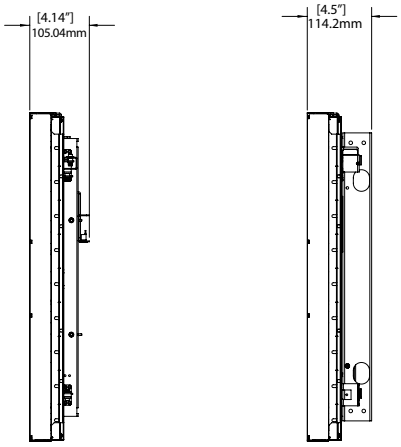
Flexible Built-in Windowing Capability

CLARITY MATRIX LCD VIDEO WALL SYSTEM SPECIFICATIONS*

Front



Side



LCD PANEL	
Diagonal Size	46"
Resolution	1366 x 768
Aspect ratio (W:H)	16:9
Technology	Commercial-grade direct view LCD
Screen dimensions (active area)	
Diagonal	46"
Width by height (inch/mm)	40.1" x 22.5"/1018.3mm x 572.5mm (active)
Cabinet dimensions (inch/mm)	
Width by height	40.4" x 22.8"/1025.7mm x 579.8mm (module)
Installed depth with mount	4.5"/114.2mm
Display module depth without mount	4.14"/105mm
Weight	48 lbs.
Tiled image-to-image gap (minimum)	7.3 mm
Brightness (maximum)	700 nits
Response time (typical)	8ms
Contrast ratio (full field typical)	3000:1
Uniformity	>75%
Full viewing angle	178°
Colors	16.7 million
Color gamut	72% NTSC, 100% EBU
Backlight type	CCFL
Backlight life (1/2 brightness)	50,000 Hrs
Mounted depth	4.5" wall to front of screen
Accoustic noise	Fanless operation
Heat load	680 BTU per hour at 500 nit
Operating temperature range	5°-35°C
Operating humidity range	20-90% RH non-condensing
Backlight control	Individual and wall control
Backlight sensing and reporting	At display level
Display module position sensing	Auto-sensing integrated
Power consumption	Max. 350 watts Typical 275 watts
POWER SUPPLY MODULE	
Type	2U rack mount unit powers up to 4 panels
Redundancy	n+1 redundant power supplies (optional)
Line voltage	100-264 Volts AC, 50/60Hz autoswitching
Power status	Diagnostics LEDs, health monitoring and alerts
Power circuit	20A/115V or 10A/240V circuit per module
QUAD CONTROLLER MODULE	
Type	1U rack mount controller drives up to 4 panels
Inputs	4 single link DVI with HDCP Dual link DVI in and out
Image scaling	Clarity Big Picture Plus - 32 x 32 maximum
Mullion compensation	Integrated
Control	Clarity WalNet™ (LAN) (optional) RS-232 IR remote control
Frame lock	49-61 Hz
Controller status	Diagnostic LEDs, health monitoring and alerts
MOUNTING	
Clarity Matrix mount	1 per display included
Curved wall brackets	Optional
Floor standing mount bases	Optional
In-wall service	Front and rear
Matrix display module position adjustment	6-axis integrated
Weight	14 lbs.
SAFETY REGULATIONS	Complies with EN60950, FCC Class A, CISPR22/85, CE, EU RoHS

*Specifications are subject to change.

PLANAR™

When image experience matters.

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